RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/706, 275A _____
Source: _____ IFW16 _____
Date Processed by STIC: _____ 03/15/2006 _____

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RAW SEQUENCE LISTING   DATE: 03/15/2006
PATENT APPLICATION: **US/10/706,275A**   TIME: 12:41:42

Input Set : **E:\413.app.txt**
Output Set: **N:\CRF4\03152006\J706275A.raw**

```
 4 <110> APPLICANT: Lowell, George H.
 5       White, Gregory L.
 6       Burt, David S.
 7       Leanderson, Tomas B.
 8       Good, Michael F.
 9       Batzloff, Michael R.
11 <120> TITLE OF INVENTION: VACCINE
14 <130> FILE REFERENCE: 484112.413
16 <140> CURRENT APPLICATION NUMBER: US 10/706,275A
17 <141> CURRENT FILING DATE: 2003-11-13
19 <150> PRIOR APPLICATION NUMBER: US 60/425,409
20 <151> PRIOR FILING DATE: 2002-11-15
22 <150> PRIOR APPLICATION NUMBER: AU 2002302132
23 <151> PRIOR FILING DATE: 2002-11-15
25 <160> NUMBER OF SEQ ID NOS: 19
27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 14
31 <212> TYPE: PRT
32 <213> ORGANISM: Artificial Sequence
34 <220> FEATURE:
35 <223> OTHER INFORMATION: antigenic peptide sequence derivative of S. pyogenes
37 <400> SEQUENCE: 1
38 Ala Ser Arg Glu Ala Lys Lys Gln Val Glu Lys Ala Leu Glu
39  1               5                  10
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 29
44 <212> TYPE: PRT
45 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: antigenic peptide derivative of S. pyogenes with
49       flanking sequences
51 <400> SEQUENCE: 2
52 Lys Gln Ala Glu Asp Lys Val Lys Ala Ser Arg Glu Ala Lys Lys Gln
53  1               5                  10                  15
55 Val Glu Lys Ala Leu Glu Gln Leu Glu Asp Lys Val Lys
56              20                  25
59 <210> SEQ ID NO: 3
60 <211> LENGTH: 19
61 <212> TYPE: PRT
62 <213> ORGANISM: Artificial Sequence
64 <220> FEATURE:
65 <223> OTHER INFORMATION: antigenic peptide sequence EIN19
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67  <400> SEQUENCE: 3
68  Glu Ile Asn Thr Glu Glu Glu Gly Thr Pro Asp Gln Ile Ser Ser Leu
69  1               5                   10                  15
70  Ile Glu Lys
74  <210> SEQ ID NO: 4
75  <211> LENGTH: 30
76  <212> TYPE: PRT
77  <213> ORGANISM: Artificial Sequence
79  <220> FEATURE:
80  <223> OTHER INFORMATION: antigenic peptide sequence KQL30
83  <400> SEQUENCE: 4
84  Lys Gln Leu Glu Asp Arg Val Gln Gln Leu Glu Thr Glu Lys Gln Ile
85  1               5                   10                  15
86  Ser Glu Ala Ser Arg Lys Ser Ala Glu Asp Lys Val Lys Gln
87              20                  25                  30
90  <210> SEQ ID NO: 5
91  <211> LENGTH: 20
92  <212> TYPE: PRT
93  <213> ORGANISM: Artificial Sequence
95  <220> FEATURE:
96  <223> OTHER INFORMATION: antigenic peptide sequence p145
99  <400> SEQUENCE: 5
100 Leu Arg Arg Asp Leu Asp Ala Ser Arg Glu Ala Lys Lys Gln Val Glu
101 1               5                   10                  15
102 Lys Ala Leu Glu
103             20
106 <210> SEQ ID NO: 6
107 <211> LENGTH: 28
108 <212> TYPE: PRT
109 <213> ORGANISM: Artificial Sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
115 <400> SEQUENCE: 6
116 Gln Leu Glu Asp Lys Val Lys Gln Leu Arg Arg Asp Leu Asp Ala Ser
117 1               5                   10                  15
118 Arg Glu Ala Lys Glu Glu Leu Gln Asp Lys Val Lys
119             20                  25
122 <210> SEQ ID NO: 7
123 <211> LENGTH: 28
124 <212> TYPE: PRT
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
131 <400> SEQUENCE: 7
132 Leu Glu Asp Lys Val Lys Gln Ala Arg Arg Asp Leu Asp Ala Ser Arg
133 1               5                   10                  15
134 Glu Ala Lys Lys Glu Leu Gln Asp Lys Val Lys Gln
135             20                  25
138 <210> SEQ ID NO: 8
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139 <211> LENGTH: 28
140 <212> TYPE: PRT
141 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
147 <400> SEQUENCE: 8
148 Glu Asp Lys Val Lys Gln Ala Glu Arg Asp Leu Asp Ala Ser Arg Glu
149 1               5                   10                  15
150 Ala Lys Lys Gln Leu Gln Asp Lys Val Lys Gln Leu
151            20                  25
154 <210> SEQ ID NO: 9
155 <211> LENGTH: 28
156 <212> TYPE: PRT
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
163 <400> SEQUENCE: 9
164 Asp Lys Val Lys Gln Ala Glu Asp Asp Leu Asp Ala Ser Arg Glu Ala
165 1               5                   10                  15
166 Lys Lys Gln Val Gln Asp Lys Val Lys Gln Leu Glu
167            20                  25
170 <210> SEQ ID NO: 10
171 <211> LENGTH: 28
172 <212> TYPE: PRT
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
179 <400> SEQUENCE: 10
180 Lys Val Lys Gln Ala Glu Asp Lys Leu Asp Ala Ser Arg Glu Ala Lys
181 1               5                   10                  15
182 Lys Gln Val Glu Asp Lys Val Lys Gln Leu Glu Asp
183            20                  25
186 <210> SEQ ID NO: 11
187 <211> LENGTH: 28
188 <212> TYPE: PRT
189 <213> ORGANISM: Artificial Sequence
191 <220> FEATURE:
192 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
195 <400> SEQUENCE: 11
196 Val Lys Gln Ala Glu Asp Lys Val Asp Ala Ser Arg Glu Ala Lys Lys
197 1               5                   10                  15
198 Gln Val Glu Lys Lys Val Lys Gln Leu Glu Asp Lys
199            20                  25
202 <210> SEQ ID NO: 12
203 <211> LENGTH: 28
204 <212> TYPE: PRT
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
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211 <400> SEQUENCE: 12
212 Lys Gln Ala Glu Asp Lys Val Lys Ala Ser Arg Glu Ala Lys Lys Gln
213 1   5   10   15
214 Val Glu Lys Ala Val Lys Gln Leu Glu Asp Lys Val
215   20   25
218 <210> SEQ ID NO: 13
219 <211> LENGTH: 28
220 <212> TYPE: PRT
221 <213> ORGANISM: Artificial Sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
227 <400> SEQUENCE: 13
228 Gln Ala Glu Asp Lys Val Lys Gln Ser Arg Glu Ala Lys Lys Gln Val
229 1   5   10   15
230 Glu Lys Ala Leu Lys Gln Leu Glu Asp Lys Val Gln
231   20   25
234 <210> SEQ ID NO: 14
235 <211> LENGTH: 28
236 <212> TYPE: PRT
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
243 <400> SEQUENCE: 14
244 Ala Glu Asp Lys Val Lys Gln Leu Arg Glu Ala Lys Lys Gln Val Glu
245 1   5   10   15
246 Lys Ala Leu Glu Gln Leu Glu Asp Lys Val Gln Leu
247   20   25
250 <210> SEQ ID NO: 15
251 <211> LENGTH: 29
252 <212> TYPE: PRT
253 <213> ORGANISM: Artificial Sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: antigenic peptide sequence derivative of p145 base
259 <400> SEQUENCE: 15
260 Lys Gln Ala Glu Asp Lys Val Lys Ala Ser Arg Glu Ala Lys Lys Gln
261 1   5   10   15
262 Val Glu Lys Ala Leu Glu Gln Leu Glu Asp Lys Val Lys
263   20   25
266 <210> SEQ ID NO: 16
267 <211> LENGTH: 15
268 <212> TYPE: PRT
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: antigenic peptide sequence derivative of S.
273   pyogenes
275 <400> SEQUENCE: 16
276 Ala Ser Arg Glu Ala Lys Lys Gln Val Glu Gln Lys Ala Leu Glu
277 1   5   10   15
280 <210> SEQ ID NO: 17

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281 <211> LENGTH: 4
282 <212> TYPE: PRT
283 <213> ORGANISM: Artificial Sequence
285 <220> FEATURE:
286 <223> OTHER INFORMATION: Synthesized immunopotentiating spacer linked to
287       the J14 peptide
289 <400> SEQUENCE: 17
290 Cys Tyr Gly Gly
291  1
294 <210> SEQ ID NO: 18
295 <211> LENGTH: 4
296 <212> TYPE: PRT
297 <213> ORGANISM: Artificial Sequence
299 <220> FEATURE:
300 <223> OTHER INFORMATION: Synthesized immunopotentiating spacer linked to
301       the J14 peptide
303 <400> SEQUENCE: 18
304 Gly Gly Tyr Cys
305  1
308 <210> SEQ ID NO: 19
309 <211> LENGTH: 5
310 <212> TYPE: PRT
311 <213> ORGANISM: Artificial Sequence
313 <220> FEATURE:
314 <223> OTHER INFORMATION: Synthesized anchor and immunopotentiating space
315       sequence
317 <400> SEQUENCE: 19
318 Lys Gly Gly Tyr Cys
319  1               5
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VERIFICATION SUMMARY   DATE: 03/15/2006
PATENT APPLICATION: **US/10/706,275A**   TIME: 12:41:43

Input Set : **E:\413.app.txt**
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